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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,440	12/12/2000	Arno Karwath	870-003-128	7659

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EXAMINER

LEYKIN, RITA

ART UNIT PAPER NUMBER

2837

DATE MAILED: 12/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/719,440

Applicant(s)

KARWATH ET AL

Examiner

Rita Leykin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2002 and 04 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 11-36 and 42-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7,8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

This office action is in response to the amendment, filed on August 26, 2002 and supplemental amendment filed on September 4, 2002.

Applicant's arguments have been fully considered but found not persuasive. The examiner position that prior document by Archer et al. US # 5,473,229 reads on submitted claim language as amended.

The claimed truly effective system submitted by the applicant, that eliminating the need for pre-programming the external fan controller at the time of manufacture and capable of being dynamically and continuously interfaced with each fan is not reflected in the body of the submitted to examination claims 11-13, 23-36 and 42-47.

Due to the fact that all claimed components are present in the prior art by Archer et al. US # 5,473,229 the examiner is maintaining the rejection as follows.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 23-36 and 42-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Archer et al. US # 5,592,058.

With reference to Fig. 1, Archer et al. introduce:

- A system 100 that has an arrangement for electronically commutated motor 114, having a rotating assembly mechanically connected via a shaft to a device to be driven, such as fan 118;
- A microprocessor 102;
- A read only memory 106 that maybe incorporated with the microprocessor and having software used to control operation of microprocessor 102, (see column 4, lines 21-52);
- A nonvolatile memory PNV 120, for storing representative of system characteristics at a particular address as a set of operating parameters for the system 100, (see column 9, lines 5-15). Wherein, based on parameters stored in the system, microprocessor generates motor control signals M.C.S. via line 110. As a result, the motor control signals generated by the microprocessor 102 would be a function of stored parameters in addition to the control signal parameters, (see column 5, lines 21-42);
- With reference to Fig. 5 a serial interface between the ASIC 112 and microprocessor 102 provides serial communication to the ASIC 112 of a current reference signal (Iref) among the others, (see column 11, lines 13-45);

- The non-volatile memory 120, stores the information in a permanent fashion often on hard disks and includes write protection of nonvolatile memory, by the design;
- The length of transferable objects, storing the information in the predefined directory as an address, comparing the stored addresses and retrieving the information for processing is design expedient;
- The presence of volatile memory in computer setting is a matter of design choice;
- A storage site used to compensate for differences in data flow rates or interface between data systems with different rates of transmission known as buffer memory - are well known in the art.

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made use known microprocessor components for storing, adjusting and transmitting the information in order to control the motor for a device such a fan according to the system required characteristics and stored information.

The reason is to adapt motor operational characteristics to needs of system user and maintenance.

#### ***Allowable Subject Matter***

1. Claims 11-13 are allowed.
2. The following is a statement of reasons for the indication of allowable subject matter: Prior art listed in the attached PTO-892 form considered to be pertinent to the

submitted application. However, none of the cited prior art teach or suggests in combination:

- Switching on the motor and thereafter monitoring the start-up time of the motor;
- During the start-up time, setting under control of a program running by the microprocessor, a current limiting value ( $I_{ref}$ ), for limiting the motor current to a first value ( $I_{ref} = 1$ );
- Ascertaining expiration of the start-up time ( $T_s$ ) and after in program controlled manner, setting the current limiting value ( $I_{ref}$ ) to a second value ( $I_{ref} = TST$ ) that is different from the first value.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the Archer et al. control system for a multi-parameter ECM motor and apply this teaching to a micro-controller integral with the electric motor having an interface with host computer to control operation of the claimed fan system.

The reason is to control electronically operated heating/ventilation and/or air conditioning system motors according to predetermined parameters.

### ***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita Leykin whose telephone number is (703)308-5828. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on (703)308-3370.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Rita Leykin  
Examiner  
Art Unit 2837

A handwritten signature in cursive script that reads "Rita Leykin".

R.L.  
November 27, 2002